Amendments to the Claims:

Claim 30 is being amended. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method of epitaxially growing a material on a substrate, the method comprising:

using a first heating mechanism to heat a first precursor to a first decomposition temperature at or adjacent to a region of a substrate so as to cause the first precursor to decompose and generate first species which are supplied to the region;

using a second heating mechanism to separately heat a second precursor to a second decomposition temperature that is different from the first decomposition temperature at or adjacent the region of the substrate so as to cause the second precursor to decompose and generate second species which are supplied to the region;

the first and second species being supplied separately in a sequential manner to the region so as to combine at the region, wherein the separate heating of the first and second precursors to the respective first and second temperatures at or adjacent the region allows the precursors to be efficiently decomposed and reduces the time period in which unfavourable reactions can occur before the first and second species are provided to the region for combination at the region.

2. (Previously presented) A method according to claim 1, wherein the species are supplied separately to the region by the relative movement of the substrate to cause the movement of the region with respect to the locations at which decomposition of the precursors occurs.

3. (Previously presented) A method according to claim 1, wherein at least one precursor is supplied separately to the region as a gas stream.

4. (Previously presented) A method according to claim 1, wherein the species are chosen from the Group III and Group V elements.

5. (Previously presented) A method according to claim 1, wherein the species are chosen from the Group IV elements.

6. (Original) A method according to claim 4, wherein the species comprise Gallium and Nitrogen.

7. (Original) A method according to claim 5, wherein the species comprise Carbon and Silicon.

8. (Original) A method according to claim 6, wherein one of the precursors is ammonia.

9. (Previously presented) A method according to claim 1, wherein the substrate comprises a semiconductor such as Gallium-Arsenide.

10. (Previously presented) A method according to claim 1, wherein one of the precursors is heated to its decomposition temperature by heating the substrate.

11. (Original) A method according to claim 10, wherein the substrate is heated to the decomposition temperature of the precursor with the lower decomposition temperature.

12. (Previously presented) A method according to claim 10, wherein the substrate is heated to a temperature in the range 550-800°C.

13. (Previously presented) A method according to claim 1, wherein one of the precursors is heated to its decomposition temperature at a location adjacent the region.

14. (Original) A method according to claim 13, wherein the precursor is heated to a temperature in the range 400-1800°C.

15. (Previously presented) A method according to claim 1, further comprising moving the region across the substrate.

16. (Previously presented) Apparatus for epitaxially growing a material on a substrate, the apparatus comprising:

a chamber containing a substrate support, the chamber having a first inlet for supplying a first precursor and a second inlet, separate from the first inlet, for supplying a second precursor, the first and second precursors having different decomposition temperatures;

first heating means for heating the first precursor to a first temperature at or adjacent a region of the substrate so as to cause the first precursor to decompose and generate first species which are supplied to the region; and

second heating means for separately heating the second precursor at or adjacent a region of the substrate to a second temperature, dissimilar to the first temperature, so as to cause the second precursor to decompose and generate second species which are supplied separately to the region and which combine with the first species at the region;

wherein the separate heating of the first and second precursors to the respective first and second temperatures at or adjacent the region allows the precursors to be efficiently decomposed and reduces the time period in which unfavourable reactions can occur before the first and second species are provided to the region for combination at the region.

17. (Original) Apparatus according to claim 16, wherein the second inlet is formed in a supply conduit located adjacent the substrate support.

18. (Original) Apparatus according to claim 17, wherein the second inlet is in the form of an elongate slot.

19. (Previously presented) Apparatus according to claim 18, wherein the second heating means is provided in or adjacent the slot.

20. (Previously presented) Apparatus according to claim 16, wherein the second heating means is in the form of a heating wire.

21. (Previously presented) Apparatus according to claim 16, wherein the first heating means is located at a position to heat the substrate support.

22. (Previously presented) Apparatus according to claim 16, further comprising means for causing relative movement between the substrate support and at least one of the inlets.

23. (Previously presented) Apparatus according to claim 17, further comprising means for causing relative movement between the substrate support and at least one of the inlets, wherein a plurality of supply conduits are provided for supplying the same or different precursors to regions on the substrate, the conduits and substrate support being relatively movable to bring the conduits into alignment with different regions.

24. (Original) Apparatus according to claim 23, wherein the supply conduits are arranged to supply precursors separately and sequentially to the region.

25. (Original) Apparatus according to claim 22 wherein the relative movement between the substrate support and at least one of the inlets is in a transverse manner.

26. (Original) Apparatus according to claim 22 wherein the relative movement between the substrate support and at least one of the inlets is in a rotational manner.

27. (Previously presented) A method according to claim 1, wherein the substrate comprises a semiconductor such as Silicon Carbide.

28. (Previously presented) A method according to claim 3, wherein the gas stream is arranged so as to form a gas shield to sweep away precursors or decomposition products not attached to the substrate

29. (Previously presented) Apparatus according to claim 20, wherein the heating wire is formed from a catalyst material.

30. (Currently amended) Apparatus for epitaxially growing a material on a substrate, the apparatus comprising:

a chamber containing a substrate support, the chamber having a first inlet for supplying a first precursor and a second inlet, separate from the first inlet, for supplying a second precursor, the first and second precursors having different decomposition temperatures;

first heating means for heating the first precursor to a first temperature at or adjacent a region of the substrate so as to cause the first precursor to decompose and generate first species which are supplied to the region; and

second heating means for separately heating the second precursor to a second temperature, dissimilar to the first temperature, at or adjacent the region so as to cause the second precursor to decompose and generate ~~secondspecies~~ second species which are supplied separately to the region; and

means to supply the first and second species in a sequential manner to the region such that the first and second species combine at the region;

wherein the first temperature is a temperature which is a suitable growth temperature for the material, and the first heating means is also used to heat the substrate to a temperature generally equal to the first temperature; and

wherein the separate heating of the first and second precursors to the respective first and second temperatures at or adjacent the region allows the precursors to be efficiently decomposed and reduces the time period in which unfavourable reactions can occur before the first and second species are provided to the region for combination at the region.

31. (Previously presented) The method of claim 1, and further comprising maintaining the substrate at a third temperature, different from the first and second decomposition temperatures, which third temperature is a suitable growth temperature for the material.

32. (Previously presented) The apparatus of claim 16, and further comprising means for maintaining the substrate at a third temperature, different from the first and second temperatures, which third temperature is a suitable growth temperature for the material.